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NEW AUSTRALIAN RECORDS OF PSYLLIPSOCIDAE, WITH COMMENT ON THE SPELLING OF *PSOCATHROPOS* RIBAGA (PSOCOPTERA: PSYLLIPSOCIDAE)

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Abstract

New records are given for *Psyllipsocus ramburii* S.-L. and *Psocathropos microps* (Enderlein) is recorded for the first time from Australia. Inconsistent spellings of *Psocathropos* Ribaga are discussed and the correct spelling determined.

Introduction

The Psyllipsocidae are a family of Psocoptera in which the adults have 3-segmented tarsi, long antennae (more than 20 segments) in which some segments are secondarily annulated, 2-segmented labial palps and a strong posterior spine on each paraproct. In winged forms the pterostigma is not more heavily sclerotized than the rest of the wing membrane and veins Cu_2 and IA end together at the wing margin. The female gonapophyses are reduced but the external valve is broad, membranous and setose. Most species of Psyllipsocidae are pale and live in protected situations in the dark. They shun bright light and are usually found in nature in caves, termite nests and under stones and are often also found in buildings, especially in cupboards and drawers. Two species, *Psocathropos lachlani* Ribaga and *Psyllipsocus ramburii* Selys-Longchamps have been recorded from Australia, the former from Queensland and the latter from all states except Queensland and the Northern Territory (Smithers 1964, 1972, 1975, 1979).

This note presents several new records of *P. ramburii* and the first for *Psocathropos microps* (Enderlein) from Australia.

New records

Psyllipsocus ramburii Selys-Longchamps

The complicated synonymy of this species is dealt with by Smithers (1967).

This is a parthenogenetic, polymorphic species with a range of forms from pale specimens with small eyes occurring in caves and other dark places to brownish specimens with well developed eyes in brighter habitats. Wing development varies from micropterous to macropterous states, the variation, at least in part, being due to environmental conditions, including crowding. Crowding during development tends to lead to macroptery (Badonnel 1959).

New Records. NEW SOUTH WALES : 2 nymphs, guano, Cliefden, Murder Cave, 2.iv., P. A. 1 ♀, 9 nymphs, New Cave, Belubula, near Orange, 4.ix.1965, G. D. Edwards. 4 ♀, on bench, Australian Museum, xii.1960, ? coll. 7 ♀, Chatswood, 14.ii.1962, J. V. Peters. 1 ♀, in millet broom, Lismore, 7.ii.1972, W. E. W. VICTORIA: 10 ♀♀, 1 nymph, Cave N1, Nowa Nowa, 18.vi.1974, E. Hamilton-Smith. WESTERN AUSTRALIA: 1 nymph, Abrakurrie Cave, 13.i.1964, P. Aitken. 4 ♀, Weebubbie Cave, Nullarbor, 27.xii.1964, E. Hamilton-Smith. 3 ♀, Abrakurrie Cave, Nullarbor, 30.xii.1965, G. S. Hunt. QUEENSLAND: 1 ♀, Riverston Cave, 8.ii.1974, E. Hamilton-Smith

This species has a very wide distribution. It has been recorded from Europe (widespread), North Africa, Britain, Ireland, Guam, Central and southern Africa, United States, Afghanistan, Australia, New Zealand, Chile and Cuba.

Psocathropos microps (Enderlein)

Axinopsocus microps Enderlein, 1903. *Zool. Jb. Abt. Syst.* 19: 3; pl. I, figs 10-18.
Psoquilla microps (Enderlein). Enderlein, 1908. *Zool. Anz.* 33: 776.
Psocatropos lesnei Badonnel, 1931. *Ann. Sci. nat. Zool.* (10) 14: 254, figs 30-37.
Psocatrops microps (Enderlein). Badonnel, 1944. *Rev. franc. Ent.* 11: 59.

New records. NORTHERN TERRITORY : 1 ♂, 2 ♀, ex carpet, Darwin, 10.v. 1980, L. Radunz. 3 ♂, 5 ♀, ex flour from Singapore, Darwin, 21.v.82, B. Gower. 2 ♂, 2 ♀, 2 n, same locality, 24.v.82, B. Gower. This species has been recorded from Africa, Madeira, Java, Taiwan, Madagascar, Thailand, Cuba, Jamaica and Reunion.

Comments on the spelling of *Psocathropos* Ribaga

Ribaga (1899) erected *Psocathropos* for *P. lachlani* Ribaga which he described and illustrated from Naples, Italy. Subsequently this species has been recorded, either under its original name or as *Psocinella slossonae* Banks, from North America, Hawaii and Australia. Six other species are now regarded as being congeneric with it. These were originally described as *Dorypteryx*

astizi Brethes (South America), *Axinopsocus microps* Enderlein (very widespread), *Gambrella pilipennis* Enderlein (India, Seychelles, Madagascar, Aldabras), *Vulturops floridanus* Corbett and Hargreaves (North America), *V. termitorum* Townsend (South America) and *Granthakita cuttackae* Behura and Dash (India).

There are about fifty papers in which members of the genus (mainly *P. lachlani* and *P. microps*) are mentioned in more than trivial fashion but the spelling of the generic name has been inconsistent, some authors using *Psocathropos* and others *Psocatropos*. Stability in nomenclature is important; both *P. lachlani* and *P. microps* occur in domestic situations and stored products and are of potential or actual economic significance and the names are likely to be required by entomologists engaged in economic work. An attempt to establish stability is made here through study of the history of the names.

Ribaga (1899) used *Psocathropos lachlani* in his text but *Psocathropos Laclani* in the caption to his figures. The latter is clearly an error as Ribaga states that the species is named for "Robert MacLachlan", the English neuropterologist. That author actually spelt his name McLachlan or M'Lachlan.

When Banks (1900) described *Psocinella slossonae* he compared it with *Psocathropos* and Enderlein spelt *Psocathropos* the same way when comparing it with his *Axinopsocus microps* (Enderlein 1903). Later, however, Enderlein (1904) listed the genus as *Psocatropos* Ribaga in a synopsis of his classification of the order and used the same spelling in several papers between then and 1927. He later reverted (Enderlein 1931) to Ribaga's spelling when presenting a key to related genera. Badonnel (1932) mentions that Enderlein had pointed out to him that *Psocathropos lesnei* Badonnel was probably synonymous with *Psocathropos microps*. Williams (1932), Zimmerman (1948), Gurney (1949, 1950), Mockford and Gurney (1956) and Thornton (1964, 1981) all used Ribaga's spelling. Pearman (1936), in his outline classification of the order, was apparently undecided and listed the genus as *Psocat(h)ropos* although he later (Pearman 1960) used *Psocathropos*. In more than thirty other papers, representing the work of many authors, the spelling used is *Psocatropos* and this certainly has been the commoner form. These authors have, presumably, been following Enderlein's 1904 usage.

Ribaga did not explain the origin of the name. The change from *Psocathropos* to *Psocatropos* seems first to have occurred in Enderlein's synopsis (1904). It is not clear whether this was accidental or deliberately done because he wished to correct Ribaga's spelling to conform with the classical spelling of *Atropos*, the name of another genus which, combined with *Psocus*, probably provided the basis for Ribaga's name. If the change was deliberate it is an unjustified emendation under the "Code", even though the classical origins of the name do not require an "h". If it was accidental then it and subsequent usages are all to be regarded as incorrect

subsequent spellings. In any case, in terms of the Code the correct spelling is *Psocathropos.*

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